



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

24-00T2540610-PDA
19-Aug-2024
18-Aug-2029
London Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

SEETRU LTD.

located at

**ALBION DOCKSIDE WORKS, HANOVER PLACE, , BRISTOL, United
Kingdom, BS1 6UT**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Level Gauges
Model: Seeflex Gauge (G31) – Self Closing Valve and Hydraulic Actuating System
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 18/Aug/2029 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

mohammed abbas

Mohammed K.M. Abbas,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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Model: Seeflex Gauge (G31) – Self Closing Valve and Hydraulic Actuating System
Endorsements:

Intended Service:

On Cargo Ships Machinery Space, Tanks containing Lubricating or other Flammable oils with Flash Points above 60°C.

Description:

Level gauges with flat glass, protected in a stainless steel column and provided with pushbutton operated self-closing isolating valves. The self-closing, pushbutton-operated valve is always fitted at the lower connection of the gauge. A closed circuit or open circuit pattern may be selected for the gauge top connection. Hydraulic actuation could be provided to the pushbutton isolating valves using hydraulic heads attached to the valve units.

Closed circuit pattern: Direct connection from the top of the gauge to the tank could be made with a pushbutton operated self-closing valve or alternatively, a valveless unit.

Open circuit pattern: When it is possible for the gauge column to extend above the top of the tank, by a minimum of 160mm or maximum 250mm, a gauge requiring connection into the tank at the lower end only could be selected. The upper end of the gauge could be fitted with an automatic safety vent valve or, alternatively, a pipe union connection. In the case of the pipe union connection design, a 10 mm outside diameter steel vent pipe is returned to the tank or into the tank vent pipe.

Rating:

Maximum Working Pressure: 38.7 psi

Temperature: -35°C to +80°C

Maximum Length: 9 meters

Service Restriction:

- 1) Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- 2) In cargo ships, failure of level gauge will not result in the release of oil into the space. Where the gauge is located such that it is subjected to a head of oil, a valve is to be fitted to allow for its removal. See 4-6-2/9.11.3 of the ABS Marine Vessels Rules.
- 4) In passenger ships, no level gauge is to be installed below the top of the tank. See 4-6-4/13.5.6 (b) and 15.3.4 (b) of the ABS Marine Vessels Rules.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. In the case of closed circuit pattern, the valveless tank return unit must not be installed below the highest level of a flammable liquid.

Notes/Drawing/Documentation:

Drawing No. Type G31 Seeflex, Liquid Level Contents Gauges, Revision: -, Pages:

Drawing no. G211940, Seeflex Gauge Closed Circuit Retro Fit, Revision: 0, Pages: 2

Drawing no. G211941, Seeflex Gauge, Revision: 0, Pages: 2

Drawing no. G211942, Seeflex Gauge, Revision: 0, Pages: 2

Drawing no. G211943, Seeflex Gauge, Revision: 0, Pages: 2

Drawing no. G211944, Seeflex Gauge, Revision: 0, Pages: 2

Drawing no. G313183, Hydraulic Actuation, Revision: 0, Page: 1

Drawing no. G313184, Hydraulic Master Cylinder Lever Type, Revision: 0, Page: 1

Drawing no. G313185, Hydraulic Master Cyl Push Button Type, Revision: 0, Page: 1

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Drawing no. G313187, Hydraulic Actuation for Seeflex and Marine Gauges, Revision: 0, Page: 1

Drawing no. GSA170110, Marine Seeflex Valve Unit – Larger Flow Type, Revision: 0, Page: 1

Drawing no. GSA170200, Marine Seeflex Valve Unit – Larger Flow Type, Revision: 0, Page: 1

Drawing no. Liquid Level Gauges, Seeflex Marine Gauge, Revision: 0, Pages: 6

Drawing no. SG-A-1056, Marine Gauge Valve Unit, Revision: 0, Pages: 2

Drawing no. SG-B-1923, Hydraulic Head, Revision: 0, Pages: 1

Drawing no. SG-B-1924, Hydraulic Actuator, Revision: 0, Page: 1

Terms of Validity:

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STANDARDS**ABS Rules:**

ABS Rules for Conditions of Classification (2024) 1A-1-4/7.7, 1A-1-A3 and A4 which covers the following:
2024 Rules for Building and Classing Marine Vessels 4-6-2/9.11.3, 4-6-2/11.5.1, 4-6-4/13.5.6, 4-6-4/15.3.4

ABS Rules for Conditions of Classification – Offshore Units and Structures (2024) 1B-1-4/9.7, 1B-1-A2 and A3 which covers the following:

2024 Rules for Building and Classing Mobile Offshore Units 4-2-3/3.5

National:

NA

International:

Regulation II-2/4.2.2.3.5.2 and 4.2.3 of SOLAS (2020 Consolidated Edition),

Government:

NA

EUMED:

NA

OTHERS:

NA